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SUMMA, ALLAN & ADDITON, P.A.
11610 NORTH COMMUNITY HOUSE ROAD
SUITE 200
CHARLOTTE, NC 28277

EXAMINER

KACKAR, RAM N

ART UNIT	PAPER NUMBER
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1763

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/715,576
Filing Date: November 17, 2000
Appellant(s): KONG ET AL.

Melissa B. Pendleton
For Appellant

EXAMINER'S ANSWER

MAILED
JUN 15 2006
GROUP 1700

Art Unit: 1763

This is in response to the appeal brief filed 4/3/2006 appealing from the Office action mailed 8/29/2006

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 22, 24 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thomas F Briody (US 3659552).

Thomas F Briody discloses a reactor vessel of quartz (Fig 1-13 and Col 2 lines 38-41) which would make it transparent to electromagnetic radiation, having a gas supply system (29), induction coils as a source of electromagnetic radiation (41), being barrel type (Fig 1), thermally responsive, hollow inverted truncated type of susceptor (15) made of thermally responsive graphite (Col 1 lines 42-54), defined by a plurality of planer surfaces (straight side wall sections) (Fig 2 and 3-18) connected at adjacent sides, spaced optimally to allow flow of reactive gases without obstruction as well as allow them to heat each other (Fig 1), and plurality of pockets to receive substrates (Fig 1). It is noted that the surface where the substrate sample sits is inherently planer.

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Regarding heating the substrate to substantially same temperature from the pocket side or from the facing side, this is a functional limitation. However since the structure of the apparatus is precisely as claimed the heating response would obviously be same.

Regarding applicants argument that the susceptor is made of straight wall sections, Examiner interprets each small section at the back of sample as a straight wall section, each section having a planer surface (Fig 3 or Fig5) and each section connected to other similar section at an adjacent side.

Regarding sidewall sections heating facing substrate to substantially eliminate temperature gradient is a functional limitation. However, since sections face each other unobstructively as in the claimed invention it is obvious that the temperature gradient will be reduced or substantially eliminated.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas F Briody (US 3659552) in view of Martin et al (US 4579080).

Thomas F Briody discloses a reactor vessel containing thermally responsive graphite (Col 1 lines 42-54) but does not disclose graphite coated with silicon carbide.

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It is well known that graphite is coated with silicon carbide to prevent migration of carbon in to silicon substrate.

Martin et al disclose a reactor vessel containing susceptor made of a thermally responsive material, graphite, coated with silicon carbide (Col 7 line 60) heated by induction coils as a source of electromagnetic radiation.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to coat graphite susceptor of Thomas F Briody by silicon carbide in order to prevent migration of carbon.

(10) Response to Argument

Applicant argues that Briody discloses a hollow drum-like holder formed of a plurality of graphite rings.

It is noted by the Examiner that even though it may appear to be a ring but it is made of a plurality planer surface sections, which are connected at sides. It is further noted that since there is nothing to limit the number of sections, it is inherent that large number of planer sections would give the whole thing an appearance of a ring.

Further, the rejections are in accord with MPEP 2111, which states that during patent examination the pending claim must be given their broadest reasonable interpretation consistent with the specification.

In response to applicants argument that the Briody does not teach spacing between facing planer sidewall sections as claimed. This point is not persuasive since the spacing is unobstructed and facing sidewalls have line of sight clearance for radiative heating.

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Further in reference to claim 50 the applicant argues that Briody and martin teach away from each other and are not properly combined.

This is not correct. The combination of Briody and Martin et al passes three-pronged test laid out in Graham v. Deere 148 USPQ 259, 467 (USSC 1966). Only differences between the prior art of Briody and claim 50 is the coating of silicon carbide on the disclosed graphite in Briody. Martin et al teach a very similar apparatus with a teaching of the coating of silicon carbide on graphite.


Applicants themselves disclose (Applicants admitted prior art) that prior art susceptors were formed of graphite coated by silicon carbide (Specification page 4 line 30).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Ram N. Kackar

Primary Examiner

Conferees:

Parviz Hassanzadeh



Gregory Mills

